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(54) Title: METHOD FOR DETERMINING THE ANGULAR MOVEMENT OF THE OUTPUT SHAFT OF AN IMPULSE NUT RUNNER AT TIGHTENING A SCREW JOINT
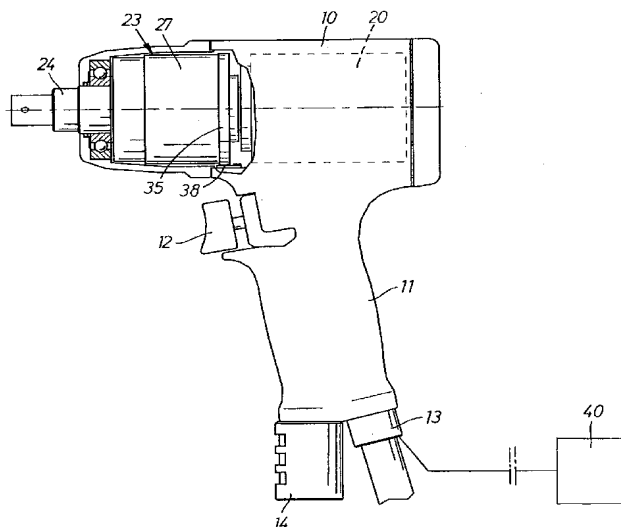
(57) Abstract: A method for determining the angular displacement of the output shaft (ϕ_o) of an impulse nut runner at tightening a screw joint to a predetermined final torque level (T_f) by means of an impulse nut runner having a motor driven impulse unit (23) with an inertia drive member (27), an output shaft (24) to be coupled to the screw joint to be tightened and an angle sensing device (35, 38) associated with the drive member (27) and arranged to deliver signals in response to the rotational movement of the drive member (27), wherein the total angular displacement of the output shaft (24) in relation to a threshold torque level (T_t) is calculated as a difference between the total angular displacement (ϕ_{Dtot}) of the drive member (27) as a result of a total number of delivered impulses (N_{tot}) and the angle of the total number of full revolutions minus one full revolution [(N_{tot} -1) . 360).